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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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### Office Action Summary

**Application No.**

09/630,971

**Applicant(s)**

PASKINS, ADRIAN CHARLES

**Examiner**

JAMES SHELEHEDA

**Art Unit**

2424

**Period for Reply** -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 21 May 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-16, 24, 25, 27 and 30-32 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-16, 24, 25, 27 and 30-32 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/C)
- Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)
- Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### *Response to Arguments*

1. Applicant's arguments, on page 3 of applicant's response, filed 05/21/09, with respect to the rejection(s) under Connelly have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Tokunaga et al. (Tokunaga) (5,968,132).

2. Applicant's arguments regarding Kenner have been fully considered but they are not persuasive.

In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

In this case, Klosterman was relied upon for disclosing a broadcast headend transmitting broadcast digital television data with sets of broadcast service data (video clips).

Marshall was then relied upon for disclosing storing the broadcast service data (video clips) at the user receiver.

Finally, Kenner discloses wherein the remote server will use demand information to select particular video clips for local storage at the user (see abstract; column 5, lines 17-8 and column 10, lines 3-53). This maximizes storage and bandwidth efficiency by using demand information to transmit video clips (see Abstract; column 5, lines 17-38, and column 10, lines 3-53). It is the *combination* of Kenner with Klosterman and Marshall which achieves the claim limitations. Therefore, applicant's arguments are not convincing.

***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claim 30 is rejected under 35 U.S.C. 103(a) as being unpatentable over Klosterman (6,453,471) (of record) in view of Marshall et al. (Marshall) (6,419,137) (of record), Arazi et al. (Arazi) (5,966,120) (of record) and Kenner et al. (Kenner) (6,269,394).

As to claim 30, Klosterman discloses a system (Fig. 2) for providing a plurality of sets of broadcast data service data (preview trailers; column 2, lines 56-65) transmitted together with broadcast digital television data as part of a broadcast signal (column 2, line 66-column 3, line 8) comprising:

a processor (100) configured to extract the plurality of sets of the broadcast data service data available from a broadcast carousel included in the broadcast signal (column 10, lines 20-48);

the broadcast data service data defining a plurality of audio/video data sets (audio/video data making up the preview trailers; column 10, lines 19-30), the digital audio/video data sets including television clips (column 1, lines 61-67);

a display configured to provide a list of a plurality of sets of the digital audio/video data sets (see Fig 1 and 8; column 10, lines 11-31); and

a controller responsive to a user initiated selection signal provided by an end user (user selection from the guide; column 10, lines 11-31) to cause the output of a user selected one of the plurality of digital audio/video data sets (column 10, lines 11-56) selected from the list (column 10, lines 11-31) simultaneously with continued receipt of the broadcast digital television data (wherein the broadcast television signals continues to be broadcast and received by the system; see Fig. 9-10, column 10, lines 40-56),

the selection signal being provided at any time during receipt of the broadcast digital television data (wherein a television guide may be opened at any time; column 10, lines 11-31 and column 2, lines 51-65) and independently of the broadcast digital television data (wherein a user opening the guide is independent of the broadcast television program; column 10, lines 11-31 and column 2, lines 51-65) and the controller is responsive at any time during receipt of the broadcast digital television data and

independently of the broadcast digital television data to output said selected portions (column 10, lines 11-56),

wherein the processor converts the digital audio/video data of the plurality of sets of the broadcast data service data into real time audio/video data (column 3, lines 9-31 and column 10, lines 11-56).

While Klosterman discloses wherein the broadcast data service data is periodically broadcast in a carousel (Figs. 9-10; column 10, lines 32-48) and a memory (Fig. 3; column 5, line 60-column 6, line 37), and a broadcast headend configured to update the plurality of digital audio/video data sets (changes in the programming lists; column 6, line 40-column 7, line 47), he fails to specifically disclose extracting and storing all of the current plurality of sets of broadcast data service data in memory, the digital audio/video data being configured in the broadcast signal for reception at a rate slower than an audio/video replay rate for the selected set and updating the audio/video with a priority determine from demand and a transmitter configured to transmit to the broadcast headend an identity of each user selected set such that the broadcast headend can determine demand for each set.

In an analogous art, Marshall discloses a receiving system (Fig. 1) allowing a user to view trailers for selected programming (video clips; column 2, lines 54-61) wherein the trailers are received and extracted from received television signals (column 1, lines 40-52 and column 3, lines 2-6), and stored in memory (column 1, lines 48-52 and column 2, lines 54-61) for the typical benefits of allowing a user to access a trailer on demand without a delay in waiting for it to be transmitted from a programming source

(column 1, lines 16-22) and reducing the required transmissions and bandwidth of the trailers.

Additionally, in an analogous art, Arazi discloses video distribution system (Fig. 1; column 6, lines 12-44) which will transmit additional content with a digital television signal (auxiliary data; column 6, lines 13-58), wherein all of the digital television data is in a first data compression format (MPEG format; column 6, lines 13-25 and column 8, lines 22-36), wherein the additional content is transmitted at a rate slower than the replay rate (column 3, lines 59-64 and column 4, lines 7-21) and wherein the processor will convert the content into real time content for display (column 3, lines 59-64 and column 4, lines 7-21) for the typical benefit of providing a more efficient use of bandwidth by utilizing spare channel bandwidth to download additional content (column 4, lines 7-22).

Finally, in an analogous art, Kenner discloses a video distribution system (Fig. 1; column 4, lines 38-65 and column 8, lines 57-60) which will utilize a transmitter configured to transmit an identity of each user selected video (see abstract; column 5, lines 17-38), such that the broadcaster can determine demand for each set and then update the audio/video with a priority determined from the demand (see abstract; column 5, lines 17-38 and column 10, lines 3-53) for the typical benefit of maximizing storage and bandwidth efficiency, by transferring and updating video clips based upon the user demand (see abstract; column 5, lines 17-38 and column 10, lines 3-53).

It would have been obvious to one of ordinary skill in the art at the time of invention by applicant to modify Klosterman's system to include extracting and storing

all of the current plurality of sets of broadcast data service data in memory, as taught by Marshall, for the typical benefits of allowing a user to access a trailer on demand without a delay in waiting for it to be transmitted from a programming source and reducing the required transmissions and bandwidth of the trailers.

Additionally, it would have been obvious to one of ordinary skill in the art at the time of invention by applicant to modify Klosterman and Marshall's system to include wherein the digital audio/video data being configured in the broadcast signal for reception at a rate slower than an audio/video replay rate for the selected set, as taught by Arazi, for the typical benefit of providing a more efficient use of bandwidth by utilizing spare channel bandwidth to download additional content.

Finally, it would have been obvious to one of ordinary skill in the art at the time of invention by applicant to modify Klosterman, Marshall and Arazi's system to include updating the audio/video with a priority determine from demand and a transmitter configured to transmit to the broadcast headend an identity of each user selected set such that the broadcast headend can determine demand for each set, as taught by Kenner, for the typical benefit of maximizing storage and bandwidth efficiency, by transferring and updating video clips based upon the user demand.

5. Claim 31 is rejected under 35 U.S.C. 103(a) as being unpatentable over Klosterman, Marshall, Arazi and Kenner as applied to claim 30 above, and further in view of Tokunaga et al. (Tokunaga) (5,968,132).



As to claim 31, while Klosterman, Marshall, Arazi and Kenner disclose wherein all of the digital television data being transmitted according to the same data compression protocol (see Arazi at column 2, line 66-column 3, line 32 and column 10, lines 32-56), they fail to specifically disclose at least some of the sets of the plurality of sets of the broadcast data service being transmitted according to an alternative compression protocol to that used for the digital television data.

In an analogous art, Tokunaga discloses a video transmission system (column 2, lines 48-63) which will use different compression formats to transmit different video content items over the network (Fig. 2 and 24; column 4, lines 5-53) based upon the available bandwidth (column 3, line 55-column 4, line 53) for the typical benefit of ensuring that data can be appropriately transmitted over the network based upon the available bandwidth without affecting other service provided by the network (column 2, lines 39-46).

It would have been obvious to one of ordinary skill in the art at the time of invention by applicant to modify Klosterman, Marshall, Arazi and Kenner's system to include at least some of the sets of the plurality of sets of the broadcast data service being transmitted according to an alternative compression protocol to that used for the digital television data, as taught in combination with Tokunaga, for the typical benefit of ensuring that data can be appropriately transmitted over the network based upon the available bandwidth without affecting other service provided by the network.

6. Claims 1, 2, 6, 9-11, 13, 25 and 32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Klosterman (6,453,471) (of record) in view of Marshall et al. (Marshall) (6,419,137) (of record), Arazi et al. (Arazi) (5,966,120) (of record) and Tokunaga et al. (Tokunaga) (5,968,132).

As to claim 1, Klosterman discloses a system (Fig. 2) for providing a plurality of sets of broadcast data service data (preview trailers; column 2, lines 56-65) transmitted together with broadcast digital television data as part of a broadcast signal (column 2, line 66-column 3, line 8) comprising:

- a processor (100) configured to extract the plurality of sets of the broadcast data service data available from a broadcast carousel included in the broadcast signal (column 10, lines 20-48);

- the broadcast data service data defining a plurality of audio/video data sets (audio/video data making up the preview trailers; column 10, lines 19-30), the digital audio/video data sets including television clips (column 1, lines 61-67);

- a display configured to provide a list of a plurality of sets of the digital audio/video data sets (see Fig 1 and 8; column 10, lines 11-31); and

- a controller responsive to a user initiated selection signal provided by an end user (user selection from the guide; column 10, lines 11-31) to cause the output of a user selected one of the plurality of digital audio/video data sets (column 10, lines 11-56) selected from the list (column 10, lines 11-31) simultaneously with continued receipt of the broadcast digital television data (wherein the broadcast television signals

continues to be broadcast and received by the system; see Fig. 9-10, column 10, lines 40-56),

the selection signal being provided at any time during receipt of the broadcast digital television data (wherein a television guide may be opened at any time; column 10, lines 11-31 and column 2, lines 51-65) and independently of the broadcast digital television data (wherein a user opening the guide is independent of the broadcast television program; column 10, lines 11-31 and column 2, lines 51-65) and the controller is responsive at any time during receipt of the broadcast digital television data and independently of the broadcast digital television data to output said selected portions (column 10, lines 11-56),

wherein the processor converts the digital audio/video data of the plurality of sets of the broadcast data service data into real time audio/video data (column 3, lines 9-31 and column 10, lines 11-56).

While Klosterman discloses wherein the broadcast data service data is periodically broadcast in a carousel (Figs. 9-10; column 10, lines 32-48) and a memory (Fig. 3; column 5, line 60-column 6, line 37), the digital television data and at least some of the sets of the plurality of sets of the broadcast data service being transmitted according to a data compression protocol (column 2, line 66-column 3, line 32 and column 10, lines 32-56), he fails to specifically disclose extracting and storing all of the current plurality of sets of broadcast data service data in memory, all of the digital television data is in a first data compression format and at least some of the digital audio/video data sets are in a data compression format different from the first format

and the selected one of the broadcast data service data plurality of sets having digital audio/video data in non-real time.

In an analogous art, Marshall discloses a receiving system (Fig. 1) allowing a user to view trailers for selected programming (video clips; column 2, lines 54-61) wherein the trailers are received and extracted from received television signals (column 1, lines 40-52 and column 3, lines 2-6), and stored in memory (column 1, lines 48-52 and column 2, lines 54-61) for the typical benefits of allowing a user to access a trailer on demand without a delay in waiting for it to be transmitted from a programming source (column 1, lines 16-22) and reducing the required transmissions and bandwidth of the trailers.

Additionally, in an analogous art, Arazi discloses video distribution system (Fig. 1; column 6, lines 12-44) which will transmit additional content with a digital television signal (auxiliary data; column 6, lines 13-58), wherein all of the digital television data is in a first data compression format (MPEG format; column 6, lines 13-25 and column 8, lines 22-36), wherein the additional content is transmitted in non-real time (column 3, lines 59-64 and column 4, lines 7-21) and wherein the processor will convert the content into real time content for display (column 3, lines 59-64 and column 4, lines 7-21) for the typical benefit of providing a more efficient use of bandwidth by utilizing spare channel bandwidth to download additional content (column 4, lines 7-22).

Finally, in an analogous art, Tokunaga discloses a video transmission system (column 2, lines 48-63) which will use different compression formats to transmit different video content items over the network (Fig. 2 and 24; column 4, lines 5-53) based upon

the available bandwidth (column 3, line 55-column 4, line 53) for the typical benefit of ensuring that data can be appropriately transmitted over the network based upon the available bandwidth without affecting other service provided by the network (column 2, lines 39-46).

It would have been obvious to one of ordinary skill in the art at the time of invention by applicant to modify Klosterman's system to include extracting and storing all of the current plurality of sets of broadcast data service data in memory, as taught by combination with Marshall, for the typical benefits of allowing a user to access a trailer on demand without a delay in waiting for it to be transmitted from a programming source and reducing the required transmissions and bandwidth of the trailers.

Additionally, it would have been obvious to one of ordinary skill in the art at the time of invention by applicant to modify Klosterman and Marshall's system to include all of the digital television data is in a first data compression format and the selected one of the broadcast data service data plurality of sets having digital audio/video data in non-real time, as taught by combination with Arazi, for the typical benefit of providing a more efficient use of bandwidth by utilizing spare channel bandwidth to download additional content.

Finally, it would have been obvious to one of ordinary skill in the art at the time of invention by applicant to modify Klosterman, Marshall and Arazi's system to include at least some of the sets of the plurality of sets of the broadcast data service being transmitted according to a data compression protocol different from that used for the digital television data, as taught in combination with Tokunaga, for the typical benefit of

ensuring that data can be appropriately transmitted over the network based upon the available bandwidth without affecting other service provided by the network.

As to claims 2 and 6, Klosterman, Marshall, Arazi and Tokunaga disclose wherein the digital audio/video data of the plurality of sets of the broadcast data service data is received and stored off-line (wherein the advertisements are stored for later use instead of immediate display; see Marshall at column 1, lines 45-51) and wherein the audio/video data is compressed and wherein the processor decompresses the audio/video data using a predefined protocol. (see Klosterman at column 2, line 66-column 3, line 32 and column 10, lines 32-56).

As to claim 9, Klosterman, Marshall, Arazi and Tokunaga disclose wherein the memory is a semiconductor memory (RAM; see Klosterman at Fig. 3 and Marshall at column 3, lines 2-6).

As to claim 10, Klosterman, Marshall, Arazi and Tokunaga disclose a digital television receiver for providing the broadcast signal to the processor (see Klosterman at column 3, lines 17-22).

As to claim 11, Klosterman, Marshall, Arazi and Tokunaga disclose wherein the system is a single integral unit (see Klosterman at column 3, lines 38-48).

As to claim 13, Klosterman, Marshall, Arazi and Tokunaga disclose wherein the digital television receiver selectively provides digital television data for display (output of tuned television channels; see Klosterman at column 3, lines 17-22 and lines 59-67) and wherein the processor extracts the sets of the plurality of sets of the broadcast data service data irrespective of that display (wherein the downloading and storing of ads is unrelated to the currently displayed video or channel; see Klosterman at column 10, lines 19-56 and Marshall at column 1, lines 40-52).

As to claims 25 and 27, Klosterman, Marshall, Arazi and Tokunaga disclose wherein the digital television data is converted into real time audio/video data and transmitted in packets (wherein television content arranged and transmitted for real-time receipt and viewing; see Klosterman at column 3, lines 38-67 and lines 1-16) according to an MPEG standard (see Arazi at column 6, lines 13-25 and column 8, lines 22-36).

As to claim 32, Klosterman, Marshall, Arazi and Connelly disclose wherein the digital television data is transmitted according to an MPEG standard and at least some of the sets of the plurality of sets of the broadcast data service data being transmitted according to a protocol other than the MPEG standard (see Arazi at column 6, lines 13-25 and column 8, lines 22-36 and Tokunaga at Fig. 24).

5. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Klosterman, Marshall, Arazi and Tokunaga as applied to claim 2 above, and further in view of Hölzle et al. (Hölzle) (5,970,249) (of record).

As to claim 3, while Klosterman, Marshall, Arazi and Tokunaga, as addressed above, disclose wherein the processor processes the plurality of sets of the broadcast data service data, they fail to specifically disclose wherein the data is processed at times of low usage.

In an analogous art, Hölzle discloses a computing system (Fig. 5) wherein program compiling is to be performed is delayed (column 4, lines 1-8) until a period of inactivity by the processor (or low usage; column 4, lines 9-23) for the benefit of more efficiently utilizing system resources (column 4, lines 19-23).

It would have been obvious to one of ordinary skill in the art at the time of invention by applicant to modify Klosterman, Marshall, Arazi and Tokunaga's system to include wherein the data is processed at time of low usage, as taught by Hölzle, to provide the common benefit of ensuring that a computer system runs as efficiently as possible.

6. Claims 4 and 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Klosterman, Marshall, Arazi and Tokunaga as applied to claim 1 above, and further in view of Winston (6,434,653) (of record).

As to claims 4 and 5, while Klosterman, Marshall, Arazi and Tokunaga disclose wherein the processor processes the data, they fail to specifically disclose wherein the



processor operates in a batch processing method with data loaded locally from the memory in small chunks.

In an analogous art, Winston discloses a computer system (Fig. 1; 100) containing a processor (101 or 104) with an internal cache (102 or 105; column 3, lines 18-19) wherein data from a local memory (113) is loaded into the caches for processing (column 3, lines 18-23) for the benefit of providing the processor with faster access to memory (column 3, lines 21-23).

It would have been obvious to one of ordinary skill in the art at the time of invention by applicant to modify Klosterman, Marshall, Arazi and Tokunaga's system to include wherein the processor operates in a batch processing method with data loaded locally from the memory in small chunks, as taught by Winston, for the benefit of providing the processor with faster access to memory by loading data into caches local to the processor.

7. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Klosterman, Marshall, Arazi and Tokunaga as applied to claim 1 above, and further in view of Russo (5,619,247) (of record).

As to claim 7, while the current combination of Klosterman, Marshall, Arazi and Tokunaga disclose wherein the digital audio/video data of the plurality of sets of the broadcast data service data is received and stored off-line (wherein the advertisements are stored for later use instead of immediate display; see Marshall at column 1, lines 45-51) and wherein the audio/video data is compression (see Klosterman at column 2, line

66-column 3, line 32 and column 10, lines 32-56), they fail to specifically disclose wherein the processor decompresses the audio/video data using a downloaded protocol.

In an analogous art, Russo discloses a video distribution system (Fig. 1; column 3, lines 40-64) wherein a proprietary compression algorithm is utilized (column 7, lines 66-67 and column 8, lines 1-6) which is programmable with downloaded signals (column 8, lines 6-10) for the typical benefits for providing additional security (column 8, lines 2-10).

It would have been obvious to one of ordinary skill in the art at the time of invention by applicant to modify Klosterman, Marshall, Arazi and Tokunaga's system to include a downloaded protocol, as taught in combination with Russo, for the typical benefits of providing additional security to distributed contents.

8. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Klosterman, Marshall, Arazi and Tokunaga as applied to claim 1 above, and further in view of Kostreski et al. (Kostreski) (5,729,549) (of record).

As to claim 8, while Klosterman, Marshall, Arazi and Tokunaga discloses wherein the broadcast data service data is received and processed offline (wherein the advertisements are stored for later use instead of immediate display; see Marshall at column 1, lines 45-51), they fail to specifically disclose wherein the processor conducts decryption of the data using a key.

In an analogous art, Kostreski discloses a system for receiving a digital broadcast channel (Fig. 8; column 25, lines 15-22) containing video, audio and data packets (column 25, lines 22-26) wherein the a decryption key is used to decrypt the received packets (column 25, lines 26-35) for the benefit of only allowing access to programming to authorized users (column 25, lines 26-31).

It would have been obvious to one of ordinary skill in the art at the time of invention by applicant to modify Klosterman, Marshall, Arazi and Tokunaga's system to include wherein the processor conducts decryption of the data using a key, as taught by Kostreski, for the benefit of enabling cable providers to protect their programming by preventing access by unauthorized users.

9. Claims 12 and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Klosterman, Marshall, Arazi and Tokunaga and further in view of Trovato (6,701,526) (of record).

As to claim 12, while Klosterman, Marshall, Arazi and Tokunaga disclose a memory, they fail to specifically disclose wherein the memory is separate from the digital television receiver and linked by means of a network connection.

In an analogous art, Trovato discloses a cable television receiver (Fig. 2; column 4, lines 29-35) for receiving and extracting data (column 3, lines 66-67 and column 4, lines 1-5) and transmitting the extracted data over an IEEE 1394 connection to an external device (column 10, lines 42-51) for storage (column 10, lines 49-51) for

providing the typical benefit of a more flexible system utilizing a portable and modular storage device.

It would have obvious to one of ordinary skill in the art at the time of invention by applicant to modify Klosterman, Marshall, Arazi and Tokunaga's system to include wherein the memory is separate from the digital television receiver and linked by means of a network connection, as taught by Trovato, for the typical benefit of providing a cable user with a portable and modular storage device with can be easily moved and replaced.

As to claim 24, Klosterman, Marshall, Arazi, Tokunaga and Trovato disclose wherein the network connection is an IEEE 1394 interface (see Trovato at column 10, lines 42-51).

10. Claims 14-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Klosterman, Marshall, Arazi and Tokunaga as applied to claim 1 above, and further in view of Inoue et al. (Inoue) (US2002/0016963A1) (of record).

As to claim 14, while Klosterman, Marshall, Arazi and Tokunaga disclose extracting and storing sets of the plurality of sets, they fail to specifically disclose wherein the controller is configured to identify corresponding extracted and stored sets of the plurality of sets and replaces sets in the memory with respective sets extracted from the broadcast signal.

In an analogous art, Inoue discloses an information receiving apparatus (Fig. 14; 100; paragraph 195) for receiving additional information transmitted with broadcast video (paragraph 75) wherein a controller (input and output control unit, 16) identifies if newly received information is an update of previously stored information (paragraph 200, lines 1-9 and lines 18-40) and replaces the previously stored portions with the newly received update (paragraph 200, lines 27-40) for the typical benefit of ensuring a user has the most up to date information available (paragraph 203).

It would have obvious to one of ordinary skill in the art at the time of invention by applicant to modify Klosterman, Marshall, Arazi and Tokunaga's system to include wherein the controller is configured to identify corresponding extracted and stored sets of the plurality of sets and replaces sets in the memory with respective sets extracted from the broadcast signal, as taught by Inoue, for the common benefit of providing the most recent broadcast data available to cable television viewers.

As to claim 15, Klosterman, Marshall and Inoue disclose wherein, if periodically the broadcast signal includes all of the plurality of sets of the broadcast data service (see Inoue at paragraph 202, lines 1-5), the controller can store all of the received plurality of sets in the memory (see Inoue at paragraph 202, lines 1-5).

As to claim 16, Klosterman, Marshall and Inoue disclose wherein the controller accesses an additional data channel to obtain and store in the memory all of the sets of the plurality of sets of the broadcast data service (wherein the trailer signals may be

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transmitted with the broadcast programming or in a separate data stream; see

Klosterman at Fig. 9 and 10, column 2, line 66-column 3, line 16 and column 10, lines 32-48).

### ***Conclusion***

11. The following are suggested formats for either a Certificate of Mailing or Certificate of Transmission under 37 CFR 1.8(a). The certification may be included with all correspondence concerning this application or proceeding to establish a date of mailing or transmission under 37 CFR 1.8(a). Proper use of this procedure will result in such communication being considered as timely if the established date is within the required period for reply. The Certificate should be signed by the individual actually depositing or transmitting the correspondence or by an individual who, upon information and belief, expects the correspondence to be mailed or transmitted in the normal course of business by another no later than the date indicated.

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Please refer to 37 CFR 1.6(d) and 1.8(a)(2) for filing limitations concerning facsimile transmissions and mailing, respectively.

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to JAMES SHELEHEDA whose telephone number is (571)272-7357. The examiner can normally be reached on Monday - Friday, 9:00AM - 5:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chris Kelley can be reached on (571) 272-7331. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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/James Sheleheda/  
Examiner, Art Unit 2424

JS